CHAPTER II

LITERATURE REVIEW

2.1 Previous Study

Study concerning topic of environmental management disclosure has been conducted by previous researchers. Below are the summary of previous study which supports this current study and also the tabulation of both similarity and difference between those researches.

1. **Ullah et al (2013)**

   This study examines environmental disclosure practices and extent of listed textile industries in Bangladesh. Sample used in this research was selected by purposive sampling technique. There are 29 from 31 textile companies listed in Dhaka Stock Exchange (DSE) and Chittagong Stock Exchange (CSE) have been taken to be the sample.

   Data used in this research was secondary data which were collected from annual reports in the period of 2004-2008 downloaded from DSE and CSE websites. Content analysis approach was taken to measure the extent of environmental management disclosure. The analysis refers to a dataset which consist of 50 item of environmental information. These items were classified to be 5 groups: (1) environmental policy items, (2) environmental pollution items, (3) environmental energy items, (4) environmental financial items, (5) others items. Calculation of reporting index used un-weighted disclosure index methodology. This method totaled disclosure score of each company.

Result of this study showed some findings. First, textile company disclosed less environmental issue in the annual report with maximum score of 69 percent. Second, the overall disclosure was poor but the existing information disclosed was considerable. Third, the extent of disclosure in annual report in Bangladesh textile company had high variation. And the last, textile company disclosed minimum information in environmental finance, energy, and policy.

The similarities of this prior study with the current one includes the purpose, variable used, analysis technique, and the type of data. Both of them aim to identify the extent of environmental disclosure by using content analysis and descriptive statistic. The analysis utilizes annual report information (secondary research).

The difference of this current study with this prior study is on the sample which uses oil, gas, and mining companies. Besides that, the area of study is ASEAN which consists of ten countries are going to be examined. This study also uses additional analysis technique, which is tested using regression analysis. It also analyzes the correlation between corporate governance score and environmental disclosure besides researching on environmental disclosure extent.

2. Buniamin (2010)

This research purpose was to examine the environmental reporting practices in the annual report of Malaysia company, particularly to measure the quantity and quality. The author took 243 companies annual reports listed in Main Board of Bursa Malaysia in 2005 by random sampling. Criteria of the sample was non-financial company.

This author expected result of the research by performing three hypothesis. First, there is a significant association between company size, quantity, and quality of environmental reporting. Second, there is a significant association between environmental sensitivity, quantity, and quality of environmental reporting. Content analysis was considered by the author as the best method to explore the environmental information in annual report. Linear regression was used to examine the correlation between the variables.

Result of the study were : (1) Environmental reporting in Malaysia was still low, (2) There is a significant association between company's size, quantity, and quality of environmental reporting, and (3) There is a significant association between environmental sensitivity, quantity, and quality of environmental reporting.

The current and Buniamin's study have similarity on their purpose, variable, and data used, that is to examine the quantity and quality of the environmental disclosure from the annual report (secondary data). The second similarity is on the content analysis usage to analyze the extent of environmental disclosure. However, there are differences of this current study with the Buniamin's research on the companies used to study, and the data period. It uses data of oil, gas, and mining company in period of 2012-2014.

3. Walls et al (2012)

The research seeks to explore the link between corporate governance and environmental performance. Particularly, the corporate governance was represented by firm's owners, managers, and board of directors. The sample consists of Singapore S&P 313 firms in 29 primary and manufacturing industries from 1997-2005. In this case, the authors measured environmental performance by using KLD dataset. Data was sourced from U.S. Security and Exchange Commission data.

This study was exploratory research which used quantitative approach. Therefore, in examining the relationship between corporate governance and environmental performance, this research analyzed about : (1) The relationship between ownership and corporate environmental performance (2) The board of directors effect towards environmental performance (3) The role of managerial incentives for environmental performance (4) The investor, director, and managerial aspects role in achieving environmental performance outcomes. Data analysis technique used is post-hoc test to know the main effect model of environmental concern.

The study result shows that there is significant association between corporate governance and environmental performance. In detail, board of director were positively related with environmental strength and concerns. Managerial incentives had direct association with environmental performance.

The Walls et al's study has similarity with the current study on the purpose of study which is to examine the correlation of corporate governance and environmental aspects. They both use secondary data to be analyzed. In the other hand, this research is different with Walls et al's study from the side of variables for the environmental aspects, which is the prior study's variable is environmental performance, while the present study's variable is environmental management disclosure. Besides that, the data used at this study is ASEAN oil, gas, and mining company with content analysis, descriptive statistic, and ANOVA test to the data at the period of 2012-2014.

4. **Eljayash et al (2012)**

The main objective of this research is to examine the quantity and quality of environmental disclosure of oil and gas company in Middle East and North Africa. Content analysis was applied as the measurement technique of environmental management disclosure. This is to determine the level of disclosure in annual reports. This study used word count technique to obtain the quantity of environmental management disclosure. The next measurement applied environmental management disclosure index checklist to determine the quality of disclosure.

This research examines 58 oil and gas companies in period of 2008-2010 resulting 174 annual reports was tested using descriptive analysis. The result of this study shows the differences in environmental disclosure in Arab oil countries is still low compared with the other oil companies in develop countries.

This current study is similar with Eljayash et al's study on its purpose, type of company analyzed, analysis technique, and type of data used. However, there are differences on the data period which the present study uses data in 2012-2014 and the area of sample that now it covers ASEAN countries.

5. Foncesa et al (2012)

The research purpose is to answer a question of "what needs to be changed in mining corporations' GRI-based frameworks for the purpose of promoting more meaningful and reliable sustainability performance information?". Technique applied to the study is comparing the sustainability reporting (annual report) with the principles of sustainability assessment and reporting (GRI guideline). This study used qualitative approach by based on literature review and 41 semi-structured interviews. The informants are the user, trainer, researcher, promoter, and services provider in connection with sustainability assessment and reporting.

The result outlines a change in systematic consideration of site-level performance, scenario building, and legacy effects which have to be promoted in mining corporation framework. The promotion is to provide stakeholders more meaningful and accurate information about sustainability progress through the annual report. While the constraint of this sustainability reporting innovation is the geographical dispersion of mining facilities.

The similarities of the current study with Foncesa's study lie on the approach of study which now study uses quantitative approach, variable used that is environmental management disclosure, and the data period used that is 2012-2014. Besides that, this current study is also different because it uses content analysis, descriptive statistic, ANOVA, regression to find the result.

According to the summary of prior researches above, the similarities and differences with this study can be shown in this table below.

Table 2.1
SIMILARITIES AND DIFFERENCES WITH PRIOR STUDIES

Description	Ullah et al	Buniamin	Walls et al	Eljayash et al	Foncesa et al	Author
Purpose of the Study	To examine the extent of corporate social and environmental disclosure among textile company in Nigeria	To examine the environmental reporting practices in the annual report of Malaysia company to determine the quantity and quality	To explore the link between corporate governance and environmental performance	To examine the quantity and quality of environmental disclosure of oil and gas company in Middle East and North Africa	To answer a question of "what needs to be changed in mining corporations' GRI-based frameworks for the purpose of promoting more meaningful and reliable sustainability performance information?"	To examine the extent of environmental management disclosure and compare the association with corporate governance score and external recognition.
Variables/Construct	Extent of Social and Environmental Disclosure	Extent of environmental reporting practice, environmental sensitivity, and company size	Corporate governance and environmental performance	Extent of environmental disclosure	Sustainability reporting	Extent of environmental management disclosure, corporate governance score,

Sample	29 textile companies listed in DSE and CSE, Bangladesh	243 companies in Malaysia	313 manufacturing firms in U.S.	58 oil and gas companies in Middle East and North Africa	41 sustainability reporting informants	35 companies listed in ASEAN
Data Period	2004-2008	2005	1997-2005	2008-2010	2012	2012-2014
Analysis Technique	Content analysis and descriptive statistic	Content analysis and descriptive statistic	Post-hoc test	Content analysis and descriptive statistic	Literature review	Content analysis, descriptive statistic, and ANOVA
Type of Data	Secondary	Secondary	Secondary	Secondary	Secondary and Primary	Secondary
Result	Corporate social and environmental disclosure in listed company is still low.	Environmental reporting in Malaysia still low and some correlations of variables are significant.	There is significant association between corporate governance and environmental performance	The differences in environmental disclosure in Arab oil countries is still low compared with the other oil companies in develop countries	The promotion is to provide stakeholders more meaningful and accurate information about sustainability progress through the annual report because of some mining factors had changed.	-

Source : data processed

2.2 Theoretical Review

The related literatures is supporting and becoming the basic to achieve the purpose of this study. This subchapter describes the theory linked to the study about environmental management disclosure, such as : environmental management disclosure, grand theory, disclosure guidelines, and Corporate Governance Scorecard.

2.2.1 Environmental Management Disclosure

Environmental management itself is closely related with environmental cost. Environmental cost is defined as cost that are incurred because poor environment quality exists (Hansen and Mowen, 2006:699). The difference is in reporting, which environmental management is reported in annual report while environmental cost is in financial statement of the company. Basically, environmental cost is divided to be four kinds : (1) environmental prevention cost, (2) environmental detection cost, (3) environmental internal cost, and (4) environmental external cost.

According to the definition of environmental cost, environmental management then is about how managers maintain the environment to destruction. Environmental management is defined as a set of processes and practices that enable organization to reduce environmental negative impact and increase its operating efficiency (http://www.epa.gov/ems/, 2015). Supporting that statement, Lawrence and Weber (2011:261-262) also states that environmental management confers four competitive advantages to the firm, including : (1) cost saving, (2) product differentiation, (3) technological innovation, and (4) strategic planning.

2.2.2 Legitimacy Theory and Social Contract Theory

Legitimacy is a psychological condition people alignments or group who are very sensitive towards environment symptoms, both physically and non- physically (Hadi, 2011:87). Making conclusion from several arguments of legitimacy theory definition in related literature, legitimacy theory is a theory which states that management has determinants to remain legitimate. Some of factors that bring to positive effect are public communication, perception building, and disclosure, one of is social disclosure.

Environmental disclosure as the part of social disclosure is one of factor which maintains company management legitimation. The disclosure reduces legitimacy gap, defined as asymmetry in company activity with society's expectation and perception of it. Conflict because of this discrepancy is anticipated.

Besides the legitimacy theory, social contract theory is also underlying this study. Social contract theory states that within interrelated society life, one most needed is harmonization and balance, covering with the environment (Hadi, 2011:95). Company, essentially, is the part of large society which both of them are influencing each other. Thus, in order to attain equality, social contract is required, in the form of agreements, either explicitly or implicitly for mutual protection.

Environmental issue is a major issue that can rise conflict between company and society. Society does not want to be losses because of the company activities. In other hand, company which attempts a good management in this matter has been tried to perform its role as the part of social contract. This means that company can position its existence in that mutually beneficial cooperation.

2.2.3 Disclosure Guideline for Oil, Gas, and Mining Company

Global Reporting Initiative provides guidance for all reporting in particular sectors. This helps company in the five sectors to make reporting more relevant and focused. Besides that it encourages the companies to be more transparent. This will give stakeholders more information they need, and help these sectors become more sustainable (www.globalreporting.org, 2012). The sectors are :

Source : GRI guideline

Figure 2.1
GRI DISCLOSURE SECTORS

GRI (2013:3) mentioned that oil and gas company disclosure is based on the GRI Oil and Gas Sector Disclosure, while mining company is based on the GRI Mining and Metals Sector Disclosure. These specific GRI guidelines are issued in May 2013 to facilitate the need of disclosing key aspects of sustainability performance that are meaningful and relevant to oil, gas, and mining company which are not sufficiently covered in the G4 Guidelines. This standard contains additional disclosure requirements, definitions, and guidance on existing G4 indicators for the specific sector.

Below is the aspets of environmental management disclosure based on GRI.

Table 2.1
ASPECTS OF ENVIRONMENTAL MANAGEMENT DISCLOSURE

No.	Aspects
1	Materials
2	Energy
3	Water
4	Biodiversity
5	Emissions
6	Effluents & Waste
7	Products & Services
8	Compliance
9	Transport
10	Environmental Investments
11	Supplier Environmental
12	Environmental Grievance Mechanisms

Source : Appendix 2, processed

The definition of operation according to GRI Oil and Gas Sector Disclosure (2013:8) is temporary or permanent sites, activities, and assets used for exploration, extraction, refining, transporting, distributing, and marketing petroleum products. The standard makes all of the operations done by the company can be fully disclosed in the sustainability report, including the social and environmental aspects. As one of main industry in country economy, the disclosure helps oil and gas industry to increase the society trust towards their responsibility.

Company can reach environmental transparency by disclosing all information related with environmental activity in the annual report or sustainability report. The disclosure recommends to fulfill items ruled by GRI guideline. GRI has given the way to disclose comprehensively by providing an index of disclosure in order company can explain its all environmental activity. The index consists of category of disclosure. In each item of disclosure, company can describes details of the activity.

The existence of regulation motivates the availability of sustainability report from all types of company in any area. In other hand, not all company provide annual report which contains environmental disclosure because of the lack mandatory regulation concerning the sustainability report. According to CSR Asia (www.csr-asia.com, 2012), in Asia, mandatory sustainability reporting is a relatively new development. Therefore, it is worthwhile for companies to encourage local stock exchanges to move towards mandatory reporting in order to improve national and regional sustainability outcomes.

2.2.4 Corporate Governance and ASEAN Corporate Governance Scorecard

There is no specific definition of corporate governance that causes different definition among countries. Plessis et al (2007:6-7) defines corporate governance as :

> The process of controlling management and of balancing the interests of all internal stakeholders and other parties who can be affected by the corporation's conduct in order to ensure responsible behavior by corporations and to achieve the maximum level of efficiency and profitability for a corporation.

Besides that, Solomon (2008:14) has his own definition of corporate governance, which suggests that corporate governance is the system of checks and balances which ascertain that company carries out their accountability to all stakeholders and is socially responsible in all areas of business activity. Based on those definitions, it can be concluded that corporate governance contains these components : (1) process of supervision/controlling, (2) ensuring the company's responsibility and accountability, and (3) relating with interests of stakeholders. In practice, expertise develops principles of corporate governance. However, each regions has their own principles that several are conceived as following :

1. The Australian Stock Exchange (ASX) Corporate Governance Council's Principles of Good Corporate Governance (GCG) and Best Practice Recommendations

   According to Plessis et al (2008:7-8), ASX identified ten principles of GCG:

   a. Solid foundations for management oversight
   b. Board structure for adding value
   c. Ethical and responsible decision making
   d. Safeguard integrity in financial reporting
   e. Timely and balanced disclosure
   f. Rights of shareholders
   g. Risk recognition and management
   h. Enhanced performance
   i. Fair and responsible remuneration
   j. Legitimate interests of stakeholders.

2. OECD Principles of Corporate Governance

   OECD explains that corporate governance is concerned with (a) ensuring the flow of external capital, (b) findings ways to attract various stakeholders in the firm to undertake optimal level of investment in capital.

Five areas or aspects which are included to this principle are below.

a. Right of Shareholders

b. Equitable of Shareholders

c. Role of Stakeholders

d. Disclosure and Transparency

e. Responsibilities of the Board

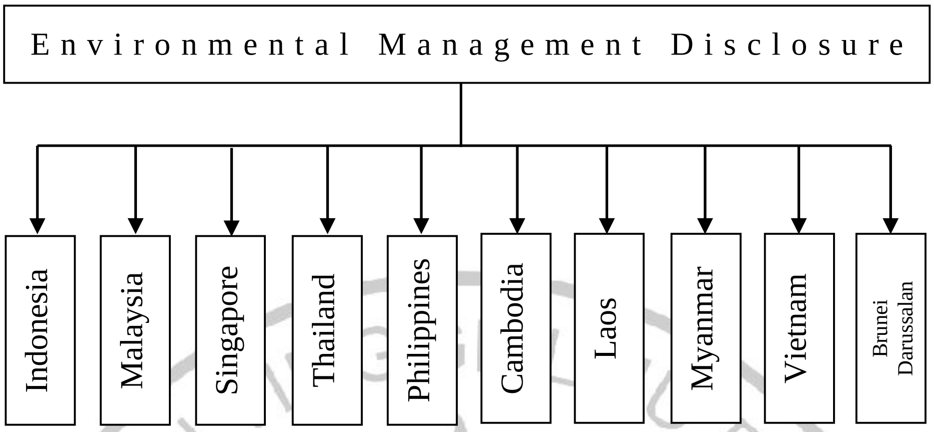
Developing the integrated capital market, ASEAN Finance Ministers, in 2009, endorsed ASEAN Capital Market Forum (ACMF) Corporate Governance (CG) Initiative. To attain this mission, ACMF released ASEAN Corporate Governance Scorecard which referred to OECD Principles of Corporate Governance.

ASEAN countries is recommended to use and developing their corporate governance based on this scorecard (ACMF, 2014). This research identifies corporate governance in ASEAN countries. Hence, measuring the company corporate governance score is appropriate to use Corporate Governance Scorecard which is based on OECD Principles of Corporate Governance.

2.3 Theoretical Framework

Six countries in ASEAN is the main object analyzed in this research. According to the previous study and theoretical basic above, in this study, there will be three steps done by the author. First, those countries are examined to know and compare the extent of disclosure, respectively. Second is the analysis of association between corporate governance score and environmental management disclosure (i.e. by the extent of disclosure).

Graphically, the theoretical framework is shown as below :



Source : processed

Figure 2.2
THEORETICAL FRAMEWORK OF COMPARATIVE ANALYSIS

Source : processed

Figure 2.3
THEORETICAL FRAMEWORK OF CORRELATION TEST

2.4 Research Hypothesis

The previous theoretical framework describes that this comparative study is to analyze and compare the extent of environmental management disclosure of oil, gas, and mining companies in ASEAN countries which is divided to be two groups, the voluntary and mandatory system of disclosure. This is based on the principles of conducting comparative study, that the sample should be comparable. In this case, the comparability is determined from the similarity of system in environmental management disclosure. That is why the ASEAN countries are divided to the voluntary and mandatory of disclosure in order it can be compare each other.

Result of study in several countries suggests that environmental management disclosure in country level is averagely low (Ullah et al, 2013). Besides that, the environmental management disclosure also effected by some factors (Buniamin, 2010). The fact shows that there is difference in ASEAN countries macro-economic condition, regulation, and the other existing diversity. However, the extent of environmental management disclosure in each countries is going to be different. Because of that, the first hypothesis of this study is stated as below.

H_1 : There is significant difference in environmental management disclosure extent of oil, gas, and mining company among ASEAN.

As the previous study mentioned that various factors can influence the extent of environmental management disclosure. Walls et al (2012) study result shows that there is a significant association between corporate governance and environmental performance. While the increasing of environmental performance has positive association with environmental management disclosure (Clarkson et al, 2006). This indicates that there is correlation between corporate governance and environmental management disclosure. Based on the previous study and theoretical framework, below is the second hypothesis :

H_2 : There is significant association between corporate governance score and environmental management disclosure in oil, gas, and mining company of ASEAN countries.